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Page 1

		1270 ABERDEEN ST. MARKHAM, ON CANADA L3R 9V1 TEL: 905-943-3200 www.dartphotospace.com	
PATENT	US #5735484 / CA #2222184 / EURO #0828655		
P/N	D206-642-441	CHG	CHG005
DESC.	Replacement Skidtube	STC	SH98-4
LOT	B131000	STC	SA00475SE
MODEL	Bell 206L/L1/L3/L4	STC	
TC APPROVAL # 09-89		MADE IN CANADA	

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____	DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐	AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐			
Date : _____	Step #: _____	QTY Effective : _____		MRB (QSI042) Approval	
Description Work Order Deviation		Disposition		Completed By	
				Lead hand / Supervisor Approval Verification	
				QC / QA Coordinator Approval	
Root Cause		FAULT CATEGORY			
Environment ☐ Design ☐ Doc/Data ☐ Equip/Tooling ☐ Handling/Pre ☐ Material ☐ Internal Transport ☐ Tribal Knowledge ☐ LOA ☐ Substation ☐ Past Expiry Date ☐ Misidentified ☐	No Re-verification ☐ Operator ☐ Offset/Setup ☐ Supplier ☐ Training ☐ Use for Testing ☐ Poor Information ☐ Rushing ☐ Product Improvement ☐ Process Improvement ☐ Manufacturing Process ☐ Past Due ☐	Pressure/Forced ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Wave/Twist in Tube ☐ Marks/Chatter ☐	Temperature/Cure ☐ Set-up ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Inspection Incomplete/Unqualified ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Instructions Incomplete/Unclear ☐ Drill Holes ☐	Power Loss/Surge ☐ Folio/Program ☐ Grain ☐ Weld ☐ Wrong Stock Pulled ☐ Out of Sequence ☐ Off-set ☐ Misabeled ☐ Fit/Function ☐ Misaligned/off center ☐	Positioned Wrong ☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Drawing ☐ Finish ☐ Misread ☐ Turning Sequence ☐
OTHER : _____					

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MCS MAY 06 2016

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____	DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐	AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐			
Date :	Step #:	QTY Effective :		MRB (QSI042) Approval	
Description Work Order Deviation			Disposition		
			Completed By		
			Lead hand / Supervisor Approval Verification		
			QC / QA Coordinator Approval		
Root Cause		FAULT CATEGORY			
Environment ☐ Design ☐ Doc/Data ☐ Equip/Tooling ☐ Handling/Pre ☐ Material ☐ Internal Transport ☐ Tribal Knowledge ☐ LOA ☐ Substation ☐ Past Expiry Date ☐ Misidentified ☐	No Re-verification ☐ Operator ☐ Offset/Setup ☐ Supplier ☐ Training ☐ Use for Testing ☐ Poor Information ☐ Rushing ☐ Product Improvement ☐ Process Improvement ☐ Manufacturing Process ☐ Past Due ☐	Pressure/Forced ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Wave/Twist in Tube ☐ Marks/Chatter ☐	Temperature/Cure ☐ Set-up ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Inspection Incomplete/Unqualified ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Instructions Incomplete/Unclear ☐ Drill Holes ☐	Power Loss/Surge ☐ Folio/Program ☐ Grain ☐ Weld ☐ Wrong Stock Pulled ☐ Out of Sequence ☐ Off-set ☐ Mislabeled ☐ Fit/Function ☐ Misaligned/off center ☐	Positioned Wrong ☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Drawing ☐ Finish ☐ Misread ☐ Turning Sequence ☐
OTHER : ☐					

Picklist Print

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Work Order ID: 141613

141613

Parent Item: D206-642-411

D206-642-411

Parent Item Name: Skidtube LH,High Gear with Standard Wearplates

Start Date: 1/22/2016

Required Date: 2/3/2016

Start Qty: 1.00

Required Qty: 1.00

Comments: IPP Rev:K05.10.11Revised picklist per CHG004KJ/CP/JLM
 IPP Rev:L 07-12-04 ECN 1080p DD verified by:ec
 IPP rev:M 08-09-29 as per DSI9421 DD verified by: IPP Rev:N
 12.11.21 ECN12-679 DD verf:JLM IPP REV:O 14.04.25
 AS PER ECN14-520 DD VERF:JLM

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
D206-642-441		Manufactured	No				Each	2.0000		1			DAS 5 9-89
D206-642-441									**				DAS 28 9-89
Replacement Skidtube,High Gear with Standard Wearplates Fits LH or RH													

DAS
27
9-89

Location	Loc Qty	Loc Code
FG083	2	
131000	1	
135088	1	

D206-648-013

Manufactured No

D206-648-013

Ground Handling Wheel Modification

DAS
5
9-89

68-6
27
DAS

Location	Loc Qty	Loc Code
PKG013	8	
109554	1	
135552	3	
136219	4	

D2932-1

Manufactured No

D2932-1

Saddle LH Out, 206

136132
MAR 14 2016

DAS
6
9-89

68-6
27
DAS

Location	Loc Qty	Loc Code
ST403	1	
125650	1	

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____	DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐	AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐			
Date : _____	Step #: _____	QTY Effective : _____		MRB (QSI042) Approval	
Description Work Order Deviation		Disposition			
				Completed By	
				Lead hand / Supervisor Approval Verification	
				QC / QA Coordinator Approval	
Root Cause Environment ☐ Design ☐ Doc/Data ☐ Equip/Tooling ☐ Handling/Pre ☐ Material ☐ Internal Transport ☐ Tribal Knowledge ☐ LOA ☐ Substation ☐ Past Expiry Date ☐ Misidentified ☐ No Re-verification ☐ Operator ☐ Offset/Setup ☐ Supplier ☐ Training ☐ Use for Testing ☐ Poor Information ☐ Rushing ☐ Product Improvement ☐ Process Improvement ☐ Manufacturing Process ☐ Past Due ☐		FAULT CATEGORY Pressure/Forced ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Wave/Twist in Tube ☐ Marks/Chatter ☐ Temperature/Cure ☐ Set-up ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Inspection Incomplete/Unqualified ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Instructions Incomplete/Unclear ☐ Drill Holes ☐ Power Loss/Surge ☐ Folio/Program ☐ Grain ☐ Weld ☐ Wrong Stock Pulled ☐ Out of Sequence ☐ Off-set ☐ Misabeled ☐ Fit/Function ☐ Misaligned/off center ☐ Positioned Wrong ☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Drawing ☐ Finish ☐ Misread ☐ Turning Sequence ☐			
OTHER : ☐					

Picklist Print

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Work Order ID: 141613

141613

Parent Item: D206-642-411

D206-642-411

Parent Item Name: Skidtube LH, High Gear with Standard Wearplates

Start Date: 1/22/2016

Required Date: 2/3/2016

Start Qty: 1.00

Required Qty: 1.00

D2933-1 Manufactured No

D2933-1

Saddle LH In, 206

DAS
27
9-89

Location

Loc Qty

Loc Code

ST396

5

136247

4

81621

1

ST403

1

126664

1

Each

6.0000

**

DAS

6

9-89

DAS

28

9-89

D2938-1 Manufactured No

D2938-1

Saddle LH Out, 206

DAS
27
9-89

Location

Loc Qty

Loc Code

ST395

5

108897

1

136261

4

ST403

1

125652

1

Each

1.0000

**

DAS

6

9-89

DAS

28

9-89

D2939-1 Manufactured No

D2939-1

Saddle LH In, 206

DAS
27
9-89

Location

Loc Qty

Loc Code

ST403

1

125653

1

**

DAS

6

9-89

DAS

28

9-89

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DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐					
Date :		Step #:		QTY Effective :			MRB (QSI042) Approval		
Description Work Order Deviation				Disposition				Completed By	
								Lead hand / Supervisor Approval Verification	
Root Cause		FAULT CATEGORY							
Environment ☐	No Re-verification ☐	Pressure/Forced ☐	Temperature/Cure ☐	Power Loss/Surge ☐	Positioned Wrong ☐				
Design ☐	Operator ☐	Bending ☐	Set-up ☐	Folio/Program ☐	Outside Dimensions ☐				
Doc/Data ☐	Offset/Setup ☐	Centre Not Concentric ☐	BOM/Route ☐	Grain ☐	Over/Under tolerance ☐				
Equip/Tooling ☐	Supplier ☐	Cracks ☐	Broken/Damage/Defect ☐	Weld ☐	Part Incorrect ☐				
Handling/Pre ☐	Training ☐	Crimp/Kink/Ripple/Wave ☐	Inspection Incomplete/Unqualified ☐	Wrong Stock Pulled ☐	Part Lost/Missing ☐				
Material ☐	Use for Testing ☐	Cuffs ☐	Contamination ☐	Out of Sequence ☐	Part Moved ☐				
Internal Transport ☐	Poor Information ☐	Crushing ☐	Countersink ☐	Off-set ☐	Drawing ☐				
Tribal Knowledge ☐	Rushing ☐	Heat Treat ☐	Cut Too Short ☐	Mislabeled ☐	Finish ☐				
LOA ☐	Product Improvement ☐	Wave/Twist in Tube ☐	Instructions Incomplete/Unclear ☐	Fit/Function ☐	Misread ☐				
Substation ☐	Process Improvement ☐	Marks/Chatter ☐	Drill Holes ☐	Misaligned/off center ☐	Turning Sequence ☐				
Past Expiry Date ☐	Manufacturing Process ☐	OTHER : _____							
Misidentified ☐	Past Due ☐								

Picklist Print

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Work Order ID: 141613

141613

Parent Item: D206-642-411

D206-642-411

Parent Item Name: Skidtube LH, High Gear with Standard Wearplates

Start Date: 1/22/2016

Required Date: 2/3/2016

Start Qty: 1.00

Required Qty: 1.00

AN3-41A Purchased No

Each 426.0000 8

AN3-41A

Bolt

**

DAS
6
9-89

DAS
28
9-89

DAS
27
9-89

Location	Loc Qty	Loc Code
FG	20	
122416	20	
over003	314	
123355	314	
ST347	92	
123355	92	

D2652 Manufactured No

Each 343.0000 16

D2652

Bushing

**

DAS
6
9-89

141077X13

DAS
27
9-89

Location	Loc Qty	Loc Code
FG	45	
31985	45	
ST009	298	
136228	291	
136792	7	

DAS
28
9-89

MS21042L3 Purchased No

Each 2,319.000 8

MS21042L3

Nut

**

DAS
6
9-89

DAS
27
9-89

Location	Loc Qty	Loc Code
FP001	163	
m133790	163	
GA	168	
m133790	168	
ST304	1988	
m133790	2	
m134039	1986	

DAS
28
9-89

MAR 14 2016

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Page 3

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐					
Date :		Step #:		QTY Effective :			MRB (QSI042) Approval Completed By Lead hand / Supervisor Approval Verification QC / QA Coordinator Approval		
Description Work Order Deviation				Disposition					
Root Cause Environment ☐ Design ☐ Doc/Data ☐ Equip/Tooling ☐ Handling/Pre ☐ Material ☐ Internal Transport ☐ Tribal Knowledge ☐ LOA ☐ Substation ☐ Past Expiry Date ☐ Misidentified ☐ No Re-verification ☐ Operator ☐ Offset/Setup ☐ Supplier ☐ Training ☐ Use for Testing ☐ Poor Information ☐ Rushing ☐ Product Improvement ☐ Process Improvement ☐ Manufacturing Process ☐ Past Due ☐		FAULT CATEGORY Pressure/Forced ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Wave/Twist in Tube ☐ Marks/Chatter ☐ Temperature/Cure ☐ Set-up ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Inspection Incomplete/Unqualified ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Instructions Incomplete/Unclear ☐ Drill Holes ☐		Power Loss/Surge ☐ Folio/Program ☐ Grain ☐ Weld ☐ Wrong Stock Pulled ☐ Out of Sequence ☐ Off-set ☐ Mislabeled ☐ Fit/Function ☐ Misaligned/off center ☐ Positioned Wrong ☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Drawing ☐ Finish ☐ Misread ☐ Turning Sequence ☐					
		OTHER : ☐							

Picklist Print

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Work Order ID: 141613

141613

Parent Item: D206-642-411

D206-642-411

Parent Item Name: Skidtube LH,High Gear with Standard Wearplates

Start Date: 1/22/2016

Required Date: 2/3/2016

Start Qty: 1.00

Required Qty: 1.00

NAS1149D0363J

Purchased

No

Each

1,717.000

NAS1149D0363.I

Washer

**

DAS

6

9-89

DAS

28

9-89

DAS

27

9-89

Location

Loc Qty

Loc Code

GA

64

m130799

64

ST260a

1000

m134055

1000

ST263

653

m133790

155

m133932

498

AN5-11A

Purchased

No

Each

145.0000

AN5-11A

BOLT

**

DAS

6

9-89

DAS

28

9-89

DAS

27

9-89

Location

Loc Qty

Loc Code

over003

60

M134134

60

ST338

85

M133234

35

M134039

50

AN5-12A

Purchased

No

Each

38.0000

AN5-12A

Bolt

**

MAR 14 2016
6
9-89

DAS

27

9-89

Location

Loc Qty

Loc Code

over003

25

M131957

25

ST338

13

M132189

13

DAS

28

9-89

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DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

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Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐					
Date :		Step #:		QTY Effective :			MRB (QSI042) Approval		
Description Work Order Deviation				Disposition				Completed By	
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Root Cause Environment ☐ Design ☐ Doc/Data ☐ Equip/Tooling ☐ Handling/Pre ☐ Material ☐ Internal Transport ☐ Tribal Knowledge ☐ LOA ☐ Substation ☐ Past Expiry Date ☐ Misidentified ☐ No Re-verification ☐ Operator ☐ Offset/Setup ☐ Supplier ☐ Training ☐ Use for Testing ☐ Poor Information ☐ Rushing ☐ Product Improvement ☐ Process Improvement ☐ Manufacturing Process ☐ Past Due ☐		FAULT CATEGORY Pressure/Forced ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Wave/Twist in Tube ☐ Marks/Chatter ☐ Temperature/Cure ☐ Set-up ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Inspection Incomplete/Unqualified ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Instructions Incomplete/Unclear ☐ Drill Holes ☐		Power Loss/Surge ☐ Folio/Program ☐ Grain ☐ Weld ☐ Wrong Stock Pulled ☐ Out of Sequence ☐ Off-set ☐ Mislabeled ☐ Fit/Function ☐ Misaligned/off center ☐ Positioned Wrong ☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Drawing ☐ Finish ☐ Misread ☐ Turning Sequence ☐					
OTHER : ☐									

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

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Work Order: _____ Part No. _____ NCR No. _____	DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐	AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐			
Date : _____	Step #: _____	QTY Effective : _____		MRB (QSI042) Approval	
Description Work Order Deviation		Disposition		Completed By	
				Lead hand / Supervisor Approval Verification	
				QC / QA Coordinator Approval	
Root Cause Environment ☐ Design ☐ Doc/Data ☐ Equip/Tooling ☐ Handling/Pre ☐ Material ☐ Internal Transport ☐ Tribal Knowledge ☐ LOA ☐ Substation ☐ Past Expiry Date ☐ Misidentified ☐ No Re-verification ☐ Operator ☐ Offset/Setup ☐ Supplier ☐ Training ☐ Use for Testing ☐ Poor Information ☐ Rushing ☐ Product Improvement ☐ Process Improvement ☐ Manufacturing Process ☐ Past Due ☐		FAULT CATEGORY Pressure/Forced ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Wave/Twist in Tube ☐ Marks/Chatter ☐ Temperature/Cure ☐ Set-up ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Inspection Incomplete/Unqualified ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Instructions Incomplete/Unclear ☐ Drill Holes ☐ Power Loss/Surge ☐ Folio/Program ☐ Grain ☐ Weld ☐ Wrong Stock Pulled ☐ Out of Sequence ☐ Off-set ☐ Misabeled ☐ Fit/Function ☐ Misaligned/off center ☐ Positioned Wrong ☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Drawing ☐ Finish ☐ Misread ☐ Turning Sequence ☐			
☐ OTHER : _____					

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Work Order ID: 141613

141613

Parent Item: D206-642-411

D206-642-411

Parent Item Name: Skidtube LH,High Gear with Standard Wearplates

Start Date: 1/22/2016

Required Date: 2/3/2016

Start Qty: 1.00

Required Qty: 1.00

AN4-6A

Purchased

No

Each

1,104.000

12

AN4-6A

BOLT

DAS
27
9-89

Location

Loc Qty

Loc Code

CA

143

M128403

43

M130851

100

ST345

961

M133316

18

M133363

1

M133790

942

12

DAS
6
9-89 DAS
28
9-89

NAS1149D0463J

Purchased

No

Each

4,926.000

24

NAS1149D0463J

WASHER

DAS
27
9-89

Location

Loc Qty

Loc Code

GA

397

M129390

41

M132035

356

ST260a

1975

M134039

1975

ST263

1205

M134039

1205

ST269

1349

M130799

361

M132317

100

M132677

888

24

DAS
6
9-89

DAS
28
9-89

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DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

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Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐					
Date : _____		Step #: _____		QTY Effective : _____			MRB (QSI042) Approval 		
Description Work Order Deviation				Disposition					
							Completed By		
							Lead hand / Supervisor Approval Verification		
							QC / QA Coordinator Approval		

Root Cause				FAULT CATEGORY			
Environment ☐	☐	No Re-verification	☐	Pressure/Forced	☐	Temperature/Cure	☐
Design ☐	☐	Operator	☐	Bending	☐	Set-up	☐
Doc/Data ☐	☐	Offset/Setup	☐	Centre Not Concentric	☐	BOM/Route	☐
Equip/Tooling ☐	☐	Supplier	☐	Cracks	☐	Broken/Damage/Defect	☐
Handling/Pre ☐	☐	Training	☐	Crimp/Kink/Ripple/Wave	☐	Inspection Incomplete/Unqualified	☐
Material ☐	☐	Use for Testing	☐	Cuffs	☐	Contamination	☐
Internal Transport ☐	☐	Poor Information	☐	Crushing	☐	Countersink	☐
Tribal Knowledge ☐	☐	Rushing	☐	Heat Treat	☐	Cut Too Short	☐
LOA ☐	☐	Product Improvement	☐	Wave/Twist in Tube	☐	Instructions Incomplete/Unclear	☐
Substation ☐	☐	Process Improvement	☐	Marks/Chatter	☐	Drill Holes	☐
Past Expiry Date ☐	☐	Manufacturing Process	☐	OTHER : _____			
Misidentified ☐	☐	Past Due	☐				

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Work Order ID: 141613

141613

Parent Item: D206-642-411

D206-642-411

Parent Item Name: Skidtube LH,High Gear with Standard Wearplates

Start Date: 1/22/2016

Required Date: 2/3/2016

Start Qty: 1.00

Required Qty: 1.00

MS21042L4

Purchased

No

Each

3,030.000

12

MS21042L4

Locknut

**

DAS
6

DAS

9-89

28

9-89

Location

Loc Qty

Loc Code

FP001

41

m133363

41

GA

26

m127813

26

ST007

1500

m134055

1500

ST303

1366

m133769

1366

ST305

97

m130922

97

DAS
27
9-89

12

D3407-043

Manufactured

No

Each

12.0000

1

D3407-043

Tow Ring

**

DAS
6

DAS

9-89

28

9-89

Location

Loc Qty

Loc Code

st530

12

136685

10

136686

2

DAS
27
9-89

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DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐					
Date :		Step #:		QTY Effective :			MRB (QSI042) Approval		
Description Work Order Deviation				Disposition				Completed By	
								Lead hand / Supervisor Approval Verification	
Root Cause		FAULT CATEGORY							
Environment ☐	No Re-verification ☐	Pressure/Forced ☐	Temperature/Cure ☐	Power Loss/Surge ☐	Positioned Wrong ☐				
Design ☐	Operator ☐	Bending ☐	Set-up ☐	Folio/Program ☐	Outside Dimensions ☐				
Doc/Data ☐	Offset/Setup ☐	Centre Not Concentric ☐	BOM/Route ☐	Grain ☐	Over/Under tolerance ☐				
Equip/Tooling ☐	Supplier ☐	Cracks ☐	Broken/Damage/Defect ☐	Weld ☐	Part Incorrect ☐				
Handling/Pre ☐	Training ☐	Crimp/Kink/Ripple/Wave ☐	Inspection Incomplete/Unqualified ☐	Wrong Stock Pulled ☐	Part Lost/Missing ☐				
Material ☐	Use for Testing ☐	Cuffs ☐	Contamination ☐	Out of Sequence ☐	Part Moved ☐				
Internal Transport ☐	Poor Information ☐	Crushing ☐	Countersink ☐	Off-set ☐	Drawing ☐				
Tribal Knowledge ☐	Rushing ☐	Heat Treat ☐	Cut Too Short ☐	Mislabeled ☐	Finish ☐				
LOA ☐	Product Improvement ☐	Wave/Twist in Tube ☐	Instructions Incomplete/Unclear ☐	Fit/Function ☐	Misread ☐				
Substation ☐	Process Improvement ☐	Marks/Chatter ☐	Drill Holes ☐	Misaligned/off center ☐	Turning Sequence ☐				
Past Expiry Date ☐	Manufacturing Process ☐	OTHER : _____							
Misidentified ☐	Past Due ☐								

Picklist Print

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Work Order ID: 141613

141613

Parent Item: D206-642-411

D206-642-411

Parent Item Name: Skidtube LH,High Gear with Standard Wearplates

Start Date: 1/22/2016

Required Date: 2/3/2016

Start Qty: 1.00

Required Qty: 1.00

D3456-1 Manufactured No

Each 169.0000 1

D3456-1

Washer

DAS
6

~~2-89~~ DAS
28
9-89

DAS
27
9-89

<u>Location</u>	<u>Loc Qty</u>	<u>Loc Code</u>
FG	7	
25701	7	
ST038	112	
136922	37	
140756	75	
ST038A	50	
141125	50	

D3457-1 Manufactured No

Each 54.0000 2

D3457-1

Washer

DAS
6

~~9-89~~ DAS
28
9-89

DAS
27
9-89

<u>Location</u>	<u>Loc Qty</u>	<u>Loc Code</u>
FG	10	
32409	10	
ST037	8	
127393	8	
ST038A	36	
138904	36	

MS21043-4 Purchased No

Each 998.0000 1

MS21043-4

Nut

DAS DAS
6 28
~~9-89~~ 9-89

DAS
27
9-89

<u>Location</u>	<u>Loc Qty</u>	<u>Loc Code</u>
FG	40	
104603	40	
GA	262	
m132803	262	
ST32	696	
m133769	696	

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DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐					
Date : _____		Step #: _____		QTY Effective : _____			MRB (QSI042) Approval		
Description Work Order Deviation				Disposition				Completed By	
Root Cause Environment ☐ Design ☐ Doc/Data ☐ Equip/Tooling ☐ Handling/Pre ☐ Material ☐ Internal Transport ☐ Tribal Knowledge ☐ LOA ☐ Substation ☐ Past Expiry Date ☐ Misidentified ☐ No Re-verification ☐ Operator ☐ Offset/Setup ☐ Supplier ☐ Training ☐ Use for Testing ☐ Poor Information ☐ Rushing ☐ Product Improvement ☐ Process Improvement ☐ Manufacturing Process ☐ Past Due ☐		FAULT CATEGORY Pressure/Forced ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Wave/Twist in Tube ☐ Marks/Chatter ☐ Temperature/Cure ☐ Set-up ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Inspection Incomplete/Unqualified ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Instructions Incomplete/Unclear ☐ Drill Holes ☐ Power Loss/Surge ☐ Folio/Program ☐ Grain ☐ Weld ☐ Wrong Stock Pulled ☐ Out of Sequence ☐ Off-set ☐ Misabeled ☐ Fit/Function ☐ Misaligned/off center ☐ Positioned Wrong ☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Drawing ☐ Finish ☐ Misread ☐ Turning Sequence ☐							
OTHER : ☐									

Picklist Print

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Work Order ID: 141613

141613

Parent Item: D206-642-411

D206-642-411

Parent Item Name: Skidtube LH,High Gear with Standard Wearplates

Start Date: 1/22/2016

Required Date: 2/3/2016

Start Qty: 1.00

Required Qty: 1.00

AN4C5A Purchased No

Each 74.0000 1

AN4C5A

Bolt

**

DAS
6 28
9-89 9-89

DAS
27
9-89

Location	Loc Qty	Loc Code
OVER002	50	
m133990	50	
ST345	24	
m132857	4	
m133135	20	

NAS1149C0463R Purchased No

Each 406.0000 1

NAS1149C0463R

Washer

**

DAS
6
9-89 DAS
28
9-89

DAS
27
9-89

Location	Loc Qty	Loc Code
FP001	72	
m127306	72	
ST266	200	
m134167	200	
ST271	134	
m128401	34	
m133077	100	

D3413-1 Manufactured No

Each 21.0000 1

D3413-1

O-Ring

**

DAS
6
9-89 DAS
28
9-89
MAR 14 2016

DAS
27
9-89

Location	Loc Qty	Loc Code
st530	21	
136462	21	

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐					
Date : _____		Step #: _____		QTY Effective : _____			MRB (QSI042) Approval 		
Description Work Order Deviation				Disposition					
							Completed By		
							Lead hand / Supervisor Approval Verification		
							QC / QA Coordinator Approval		

Root Cause				FAULT CATEGORY			
Environment ☐	No Re-verification ☐	Pressure/Forced ☐	Temperature/Cure ☐	Power Loss/Surge ☐	Positioned Wrong ☐		
Design ☐	Operator ☐	Bending ☐	Set-up ☐	Folio/Program ☐	Outside Dimensions ☐		
Doc/Data ☐	Offset/Setup ☐	Centre Not Concentric ☐	BOM/Route ☐	Grain ☐	Over/Under tolerance ☐		
Equip/Tooling ☐	Supplier ☐	Cracks ☐	Broken/Damage/Defect ☐	Weld ☐	Part Incorrect ☐		
Handling/Pre ☐	Training ☐	Crimp/Kink/Ripple/Wave ☐	Inspection Incomplete/Unqualified ☐	Wrong Stock Pulled ☐	Part Lost/Missing ☐		
Material ☐	Use for Testing ☐	Cuffs ☐	Contamination ☐	Out of Sequence ☐	Part Moved ☐		
Internal Transport ☐	Poor Information ☐	Crushing ☐	Countersink ☐	Off-set ☐	Drawing ☐		
Tribal Knowledge ☐	Rushing ☐	Heat Treat ☐	Cut Too Short ☐	Mislabeled ☐	Finish ☐		
LOA ☐	Product Improvement ☐	Wave/Twist in Tube ☐	Instructions Incomplete/Unclear ☐	Fit/Function ☐	Misread ☐		
Substation ☐	Process Improvement ☐	Marks/Chatter ☐	Drill Holes ☐	Misaligned/off center ☐	Turning Sequence ☐		
Past Expiry Date ☐	Manufacturing Process ☐	OTHER : _____					
Misidentified ☐	Past Due ☐						

Picklist Print

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Work Order ID: 141613

141613

Parent Item: D206-642-411

D206-642-411

Parent Item Name: Skidtube LH,High Gear with Standard Wearplates

Start Date: 1/22/2016

Required Date: 2/3/2016

Start Qty: 1.00

Required Qty: 1.00

D2712 Manufactured No

Each 373.0000 10

D2712

Set Screw

DAS

6

DAS

28

~~9-89~~

9-89

Location Loc Qty Loc Code

FG 55

29962 55

ST009 218

102226 12

135950 182

89929 10

93686 14

ST012a 100

140532 100

DAS
27
9-89

10

DAS

6

DAS

28

~~9-89~~

9-89

D2934 Manufactured No

Each 30.0000 2

D2934

Saddle Spacer

Location Loc Qty Loc Code

FG 6

31929 6

ST014 24

136116 24

DAS
27
9-89

2

DAS

6

DAS

28

~~9-89~~

9-89

D2935 Manufactured No

Each 18.0000

D2935

Saddle Spacer

Location Loc Qty Loc Code

FG 6

31793 6

ST014 12

136244 12

DAS
27
9-89

2
141082

MAR 14 2016

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DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐					
Date :		Step #:		QTY Effective :			MRB (QSI042) Approval 		
Description Work Order Deviation				Disposition					
								Completed By	
								Lead hand / Supervisor Approval Verification	
						QC / QA Coordinator Approval			

Root Cause				FAULT CATEGORY			
Environment ☐	☐	No Re-verification ☐	☐	Pressure/Forced ☐	☐	Temperature/Cure ☐	☐
Design ☐	☐	Operator ☐	☐	Bending ☐	☐	Set-up ☐	☐
Doc/Data ☐	☐	Offset/Setup ☐	☐	Centre Not Concentric ☐	☐	BOM/Route ☐	☐
Equip/Tooling ☐	☐	Supplier ☐	☐	Cracks ☐	☐	Broken/Damage/Defect ☐	☐
Handling/Pre ☐	☐	Training ☐	☐	Crimp/Kink/Ripple/Wave ☐	☐	Inspection Incomplete/Unqualified ☐	☐
Material ☐	☐	Use for Testing ☐	☐	Cuffs ☐	☐	Contamination ☐	☐
Internal Transport ☐	☐	Poor Information ☐	☐	Crushing ☐	☐	Countersink ☐	☐
Tribal Knowledge ☐	☐	Rushing ☐	☐	Heat Treat ☐	☐	Cut Too Short ☐	☐
LOA ☐	☐	Product Improvement ☐	☐	Wave/Twist in Tube ☐	☐	Instructions Incomplete/Unclear ☐	☐
Substation ☐	☐	Process Improvement ☐	☐	Marks/Chatter ☐	☐	Drill Holes ☐	☐
Past Expiry Date ☐	☐	Manufacturing Process ☐	☐	OTHER : _____			
Misidentified ☐	☐	Past Due ☐	☐				

Work Order ID 141613

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141613

Page 1

Item ID: D206-642-411

Accept

Revision ID:

N900040100

Setup Start ***NS1***

Item Name: Skidtube LH, High Gear with Standard Wearplates

Stop ***NS2***

Start Date: 3/14/16
1/22/2016 Start Qty: 1.00

1

Required Date: 2/3/2016 Req'd Qty: 1.00

Cust Item ID:

Reference: 3/18/16

1

Customer:

Approvals:

Process Plan: MLJ

Date: FEB 09 2016

Tooling:

Date:

Run Start ***NR1***

QC:

Date:

SPC (Y/N):

Date:

Stop ***NR2***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
100	Document Control	0.00							
100	DOCUMENT CONTROL								
DC	Memo	0.00							
Doc. Control -USB or Paperwork	Photocopy bluefile and create labels per PPP D206-642-411 CHG008								
110	Pick Kit	0.00							
110									
Packaging	Memo	0.00							
Packaging									
120	QC4- 100% Inspect kits for completeness	0.00							
120									
QC	Memo	0.00							
Quality Control									

MLJ MAR 14 2016

DAS
8
08

MAR 14 2016

4.6 206L/L-1/L-3/L-4 HIGH GEAR SKIDTUBES

ITEM	QTY -411	QTY -412	QTY -413	QTY -414	QTY -441	QTY -457	QTY -449	QTY -451	QTY -013	PART NUMBER	DESCRIPTION
	X									D206-642-411	SKIDTUBE INSTALLATION, LH
		X								D206-642-412	SKIDTUBE INSTALLATION, RH
			X							D206-642-413	SKIDTUBE INSTALLATION, LH
				X						D206-642-414	SKIDTUBE INSTALLATION, RH
	1	1			X					D206-642-441	SKIDTUBE
						X				D206-642-457	WEARSHOE KIT (REPLACES -447)
							X			D206-642-449	RUN-ON LANDING WEARPLATE KIT
			1	1				X		D206-642-451	SKIDTUBE
	1	1	1	1					X	D206-648-013	GROUND HANDLING KIT
1					1					D2650-7	SKIDTUBE ASSEMBLY
1								1		D4361-043	SKIDTUBE ASSEMBLY
2A					22			10		D2651-1	* PLUG ⁽¹⁾
2B					22			10		D2651-3	* O-RING ⁽¹⁾
3					1			1		D2646	* AFT CAP ⁽¹⁾
4					2			2		MS27039-1-08	* SCREW ⁽¹⁾
5					2			2		NAS1149D0332J	* WASHER ⁽¹⁾ (OR AN960JD10L)
6			1							D2932-1	SADDLE, FWD OUT, LH
6		1		1						D2932-2	SADDLE, FWD OUT, RH
7	1		1							D2933-1	SADDLE, FWD IN, LH
7		1		1						D2933-2	SADDLE, FWD IN, RH
8	1		1							D2938-1	SADDLE, AFT OUT, LH
8		1		1						D2938-2	SADDLE, AFT OUT, RH
9	1		1							D2939-1	SADDLE, AFT IN, LH
9		1		1						D2939-2	SADDLE, AFT IN, RH
10	8	8	8	8						AN3-41A	BOLT
11	16	16	16	16						D2652	BUSHING
12A	8	8	8	8						MS21042-3	NUT (OR MS21042L3)
12B	8	8	8	8						NAS1149D0363J	WASHER (OR AN960JD10)
13	4	4	4	4						AN5-11A (OR AN5-12A)	* BOLT ⁽²⁾
14	4	4	4	4						AN5-11A (OR AN5-13A)	* BOLT ⁽²⁾
15	8	8	8	8						NAS1149D0563J	WASHER (OR AN960JD516)
16	12	12	12	12						AN4-6A	BOLT
17	24	24	24	24						NAS1149D0463J	WASHER (OR AN960JD416)
18	12	12	12	12						MS21042-4	NUT (OR MS21042L4)
20A					6	6				D3537-1	WEARPAD (REPLACES D2648-3)
21A					1	1				D3537-3	WEARPAD (REPLACES D3429-1)
22A					1	1				D4956-15	WEARSHOE (REPLACES D3535-15 + D3536-15)
23A					1	1				D4956-23	WEARSHOE (REPLACES D3535-23 + D3536-23)
24A					1	1				D4956-37	WEARSHOE (REPLACES D3535-37 + D3536-37)
26A					60	60				MS27039C1-08	SCREW
26B					60	60				NAS1149D0332J	WASHER (OR AN960JD10L)
26C					60					ALS7-1032-130	* INSERT ⁽¹⁾ (or AKS4-1032-130, ALS4-1032-130, AELS-1032-130)
30	1	1	1	1						D3407-043	TOW RING ASSEMBLY (REPLACES D2968-043)
32A	1	1	1	1						D3456-1	WASHER
32B	2	2	2	2						D3457-1	WASHER
33	1	1	1	1						MS21043-4	NUT
34	1	1	1	1						AN4C5A	BOLT
35	1	1	1	1						NAS1149C0463R	WASHER (OR AN960C416)
36	1	1	1	1						D3413-1	RING (REPLACES D2655)
37	10	10	10	10						D2712	SET SCREW
38	2	2	2	2						D2934	SADDLE SPACER
39	2	2	2	2						D2935	SADDLE SPACER
40									2	D3414-041	LUG ASSEMBLY (REPLACES D2659)
41									4	AN3C37A	BOLT
42									8	D2652	BUSHING
43									4	MS21043-3	NUT
44									4	NAS1149C0363R	WASHER (OR AN960C10)

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Revision: Q

Date: 13.08.12